

Page Denied

Next 1 Page(s) In Document Denied

TOP SECRET

1 July 1981

MEMORANDUM FOR: All Imagery Analysts

FROM

:

[Redacted]

25X1

SUBJECT

:

Handout to Aid in the Exploitation of Small Film Format Imagery

Attached are a series of charts and a glossary briefly describing the changes to the [Redacted] format that will go into effect on 8 July 1981. Any questions regarding this information may be addressed to me on [Redacted] secure, or to [Redacted]

25X1

25X1

25X1

25X1

[Redacted]

25X1

TOP SECRET

TOP SECRET**SMALL FILM FORMAT**

Small Film Format (SFF) is primarily a compression of the image onto a piece of film half the width of the Large Film Format (LFF) film. There is no reduction in area coverage or image quality. There are some changes in the titling and the formatting of the image. The acquisition of the imagery remains the same as with LFF except for the change to a variable sampling ratio. (A variable sampling ratio allows the collection software to select varying degrees of over and undersampling in order to maximize the number of targets acquired, while satisfying the minimum quality requirements).

The framing mode still consists of four subframes: A, B, C and D which together cover the target area. With SFF, the width of the subframes can vary from frame to frame and from subframe to subframe to accomodate the variable sampling ratio.

The stripping mode consists of imagery which is still acquired in a continuous strip" but which is reproduced onto film in separate 10 inch (230mm) lengths called segments". The end of each segment contains an area of imagery which is repeated at the beginning of the next segment to provide overlap. The segments are identified by letter (A through QQ).

The titling block layout for SFF is the same for frames and strips. Data added to the titling of SFF which did not appear on LFF includes country code, WAC cell, sampling ratio, geometric mean GSD, equipment ID, sequence number, and sequence total. Film angle to North replaces the array projection azimuth. The titling blocks are now white stripes with black lettering.

**TOP SECRET**

25X1

GLOSSARY

ASCENDING FLAG - Identifies imagery which has been collected during an ascending imaging pass.

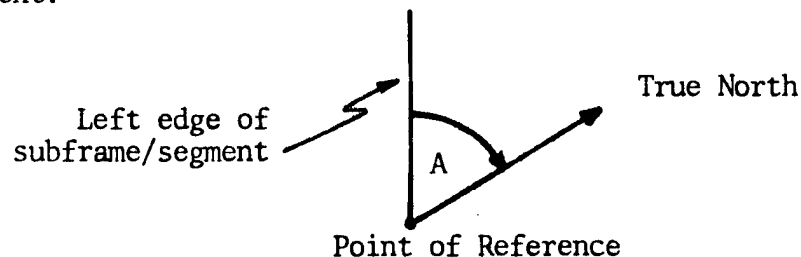
CONTROL SYSTEM - Security program for the control of handling and distribution of intelligence from overhead reconnaissance systems.

COUNTRY CODE - Two letter abbreviation for the name of a country.

DISSEMINATION RESTRICTION - Appears on selected frames or strips as required.

EQUIPMENT IDENTIFICATION - Identifies a process chain (Ground Station Use Only).

FILM ANGLE TO NORTH - The angle (A) measured clockwise at the point of reference from the first line of imagery of subframe C or of the strip segment.



GEOGRAPHIC COORDINATES - Geodetic latitude and longitude at the point of reference in units of degrees and minutes.

GEOMETRIC MEAN GSD - Calculated at the point of reference as the square root of the product of the along-scan GSD, the cross scan GSD, and the sine of the angle between the two scan directions. GSD is the ground sampled distance.

GRID REFERENCE MARK - A (┐) is placed to mark the first line of imagery for the first subframe and each strip segment.

IMAGE IDENTIFICATION - Day, month, year image was taken, image mode identification (F-framing or S-stripping) and image sequence number.

MISSION NUMBER - Sequential number identifying the imaging satellite.

OVERLAP REGION IDENTIFIER - Solid white bar located right of titling block no. 4 on strips. The horizontal dimension of the overlap region identifier is equal to the amount of image overlap contained on two sequential strip segments.

TOP SECRET

POINT OF REFERENCE - Located at the midpoint of the first line of imagery for subframe C (framing mode) and for the strip segment (stripping mode).

REPLAY SEQUENCE NUMBER/REGEN INDICATOR - A sequential two-digit number assigned to frames or strip segments produced in the replay mode. The letters "RG" in this position identify a frame or strip segment produced in the regen mode.

SCALE NUMBERS - Two six-digit image scale values. The upper value represents the scale perpendicular to the titled edge. The lower value represents the scale parallel to the titled edge. Scale values apply to the point of reference. The scale may change significantly within the image, making scaling across an image unreliable.

SEQUENCE NUMBER - Number assigned to strip segments to indicate sequential order. This number also appears on framing mode imagery when frame size exceeds the maximum film length, thereby requiring two lengths of film with two subframes each.

SEQUENCE TOTAL - Used in conjunction with sequence number to indicate total amount of segments in the strip or to indicate that two lengths of film are required for the frame (see sequence number).

SUBFRAME/SEGMENT ID - Alphabetical character identifying the strip segment or the subframe in a one subframe replay.

TIME OF IMAGING - Greenwich Mean Time (GMT) for imaging of the point of reference.

WAC - World Aeronautical Chart reference number.

25X1

TOP SECRET

SMALL FILM FORMAT

25X1

- o WHY
- o MAJOR CHANGES
 - FILM FORMAT
 - TITLING
 - ESD
- o TRANSITION SCHEDULE
- o IMPLICATIONS TO EXPLOITATION

TOP SECRET

TOP SECRET

EXPLOITATION SEGMENT

SMALL FILM FORMAT

25X1

SIGNIFICANT CHANGES

- o IMAGE PRODUCTS
 - PHYSICAL SIZE
 - NOMINAL LINE SPACING
 - SUBFRAME SCALE COMPENSATION
 - STRIP SEGMENTATION
 - REVISED TITLING
 - REVISED BAR CODE
- o DELIVERY FORM
 - ROLLS
 - FLATS

TOP SECRET

TOP SECRET

EXPLOITATION SEGMENT

SMALL FILM FORMAT

25X1

SIGNIFICANT CHANGES

- o EXPLOITATION SUPPORT DATA (R 750)
 - STPIP SEGMENTATION PARAMETERS
 - STRIP COORDINATE DATA FREQUENCY
- o AREA COVERAGE CLOUD COVER FEEDBACK (R 633)
 - ALPHANUMERIC CODED APERTURE MAP

TOP SECRET

TOP SECRET

Sanitized Copy Approved for Release 2009/12/01 : CIA-RDP81T00618R000100970001-2

25X1

25X1

Page Denied

Sanitized Copy Approved for Release 2009/12/01 : CIA-RDP81T00618R000100970001-2

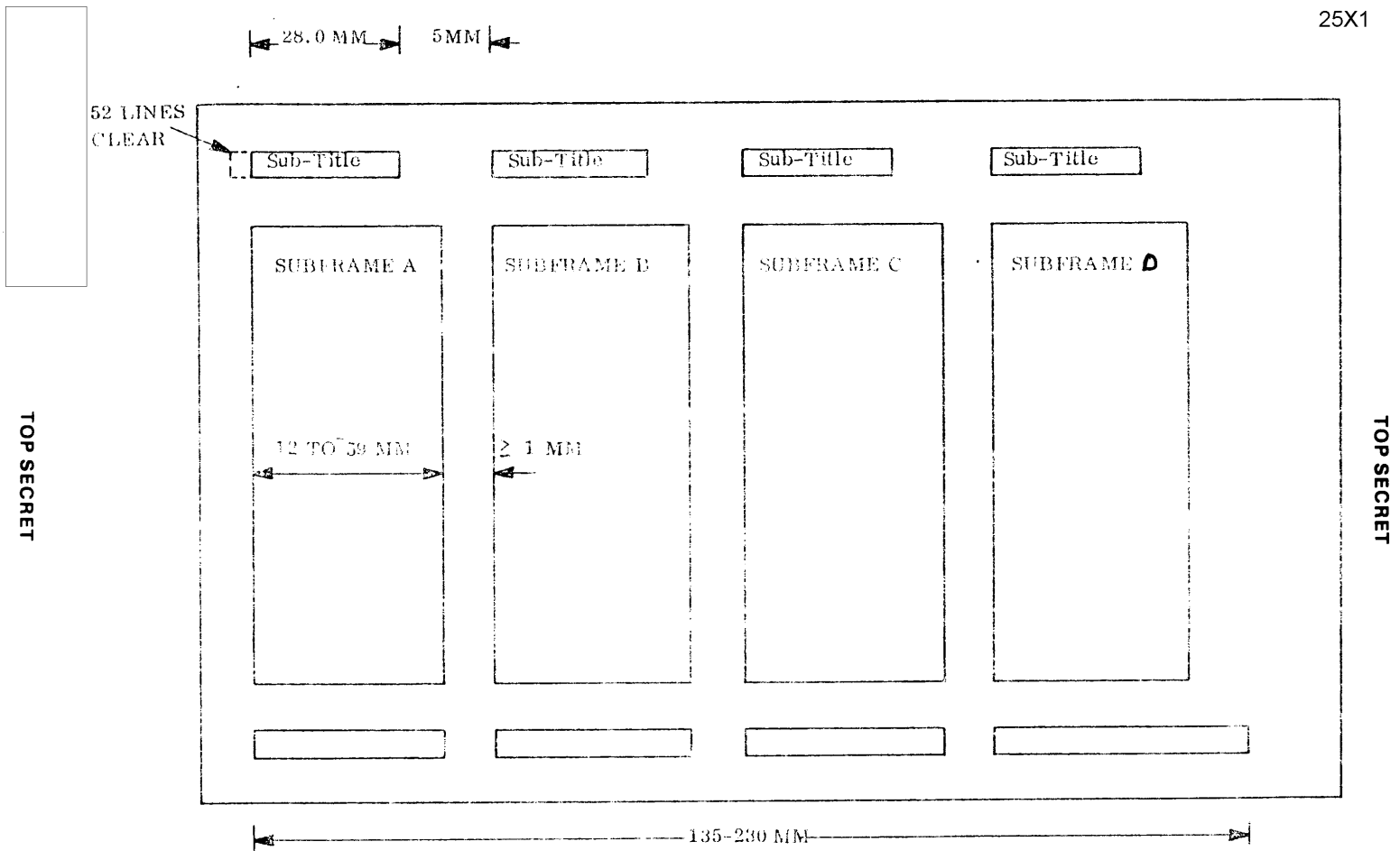


Figure 3.4-2 Frame Format-Subframes Same Length or Longer Than Title Blocks

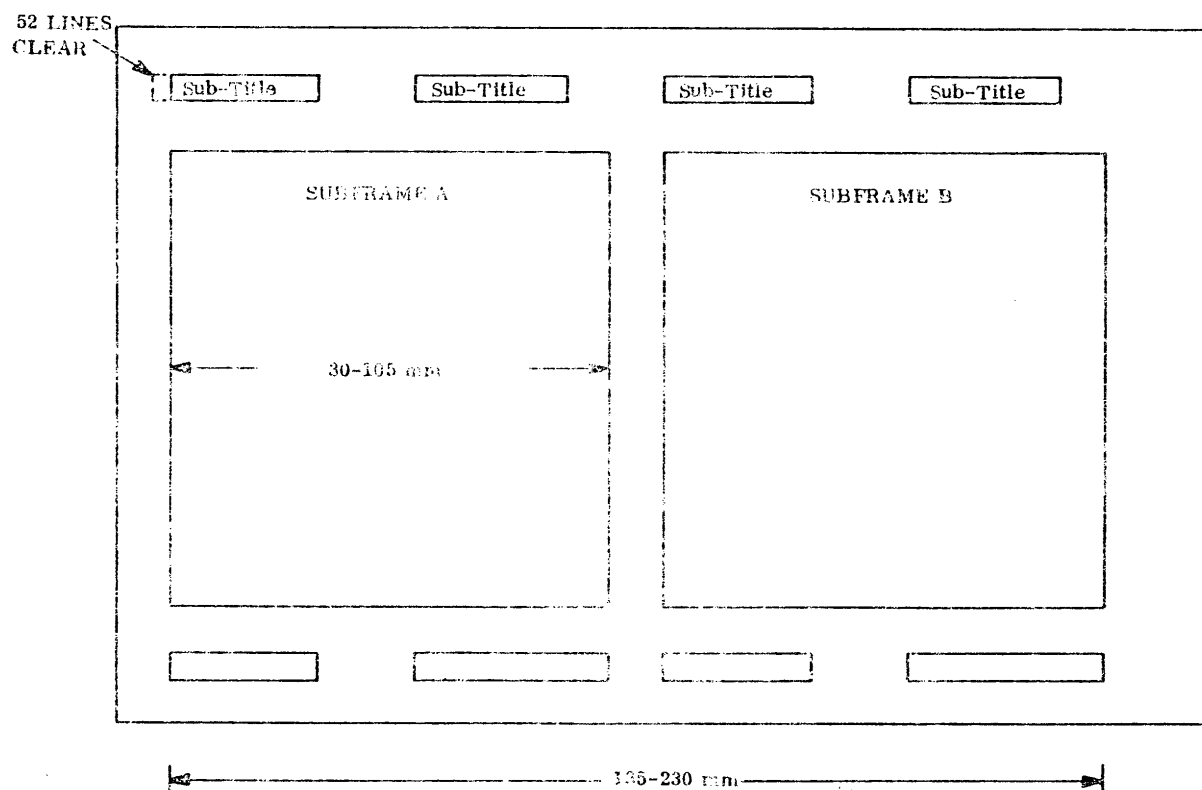


Figure 3.4-4 Frame Format-Sequence of Two Images From One

25X1

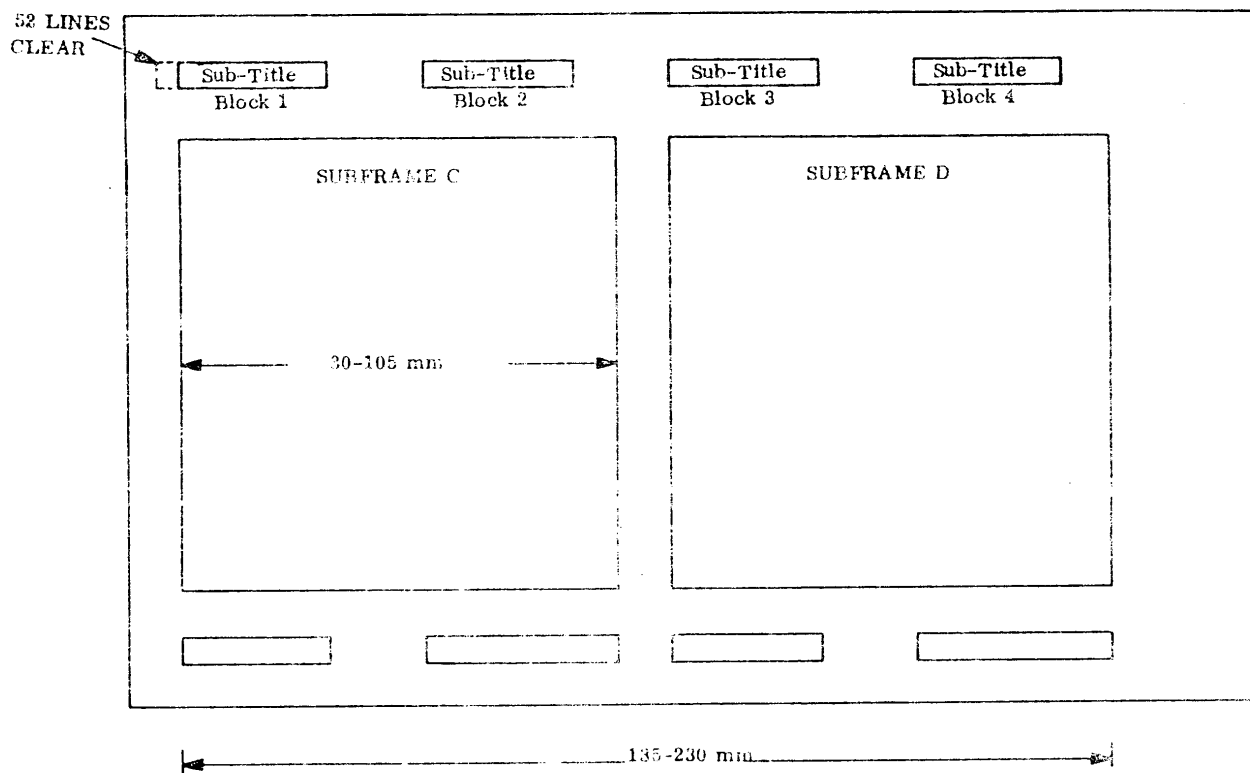
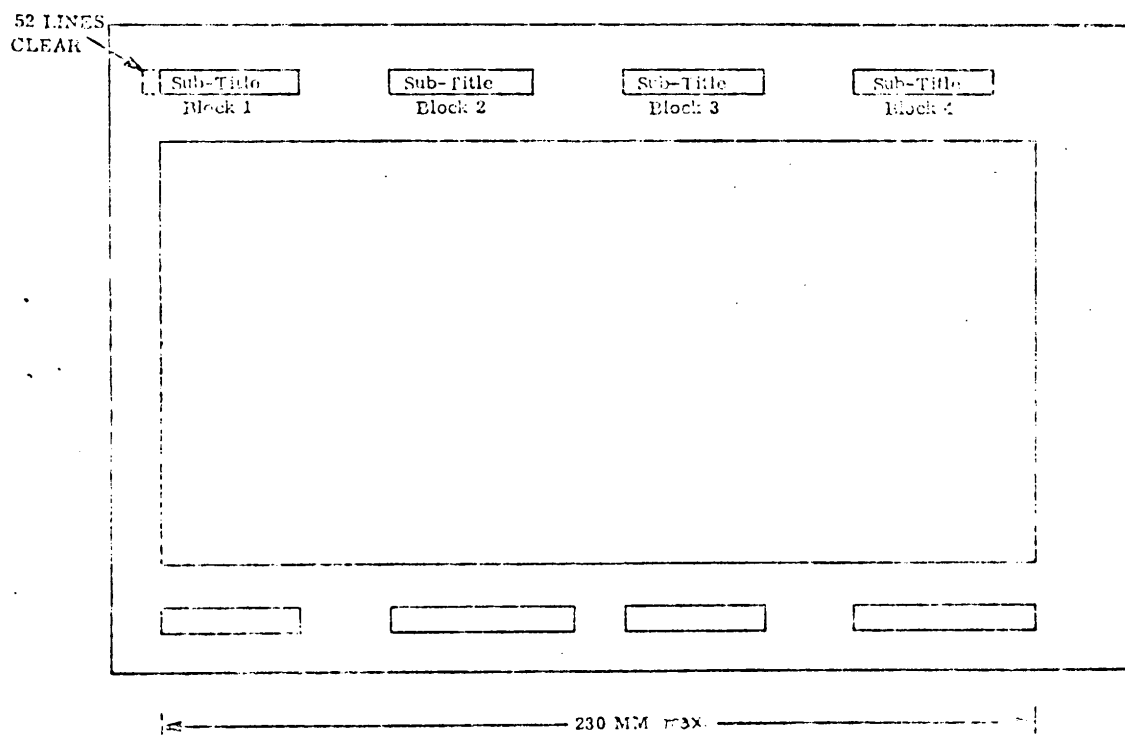


Figure 3.4-4 Frame Format-Sequence of Two Images From One (Cont'd)

IMAGE FORMATS

25X1

STRIP SEGMENT



TOP SECRET

TOP SECRET

Page Denied

Next 1 Page(s) In Document Denied

SMALL FILM FORMAT

25X1

TRANSITION SCHEDULE

7 JULY 1981

0830L - I/S 3, PASS 9 -- LAST IMAGING PASS FOR 9 INCH FILM

1500L - I/S 3, PASS 14 -- IMAGING PASS FOR DEMO 49, PH 2

1800L - DECISION POINT

2030L - I/S 3, PASS 1 -- FIRST DENIED AREA IMAGING FOR SFF

TOP SECRET

TOP SECRET